Access DB#_____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's full Name: Devesh Khare Examiner #: 77931 Date: 8/13/2002
Art Unit: 1623 Phone Number 605-1199 Serial Number: 09/892,636
Mail Box: CM1-8B19 and Bldg/Room Location: CM1-7B13 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be search Include the elected species or structures, key words, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: See Bib Data Sheet

Inventors (please provide full names): See Bib Data Sheet

Earliest priority Filing Date: See Bib Data Sheet

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please carry out a search for the method of treating lung disease in claims 13,14,24,26,29 and 33. A copy of the claims is provided.

The Bib Data Sheet which discloses the inventor names, title of the invention, and the earliest priority filing date is also provided.

Point of Contact:
Toby Port
Technical Info. Specialist
CM1 6A04
703-308-3534

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher:	NA Sequence (#)	STN 305
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up: 9/	Bibliographic ✓	Dr. Link
Date Completed: 9/17	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 20	Fulltext	Sequence Systems
Clerical prep time:	Patent Family	WWW/Internet
Online Time: 95	Other	Other (specify)

PTO-1590 (1-2000)

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=> file reg
FILE 'REGISTRY' ENTERED AT 15:32:21 ON 17 SEP 2002
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   16 SEP 2002  HIGHEST RN 452049-48-8
DICTIONARY FILE UPDATES:  16 SEP 2002  HIGHEST RN 452049-48-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d rn cn l2

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2002 ACS
RN   9004-54-0  REGISTRY
CN   Dextran (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Dextrans (8CI)
OTHER NAMES:
CN   .alpha.-Dextran
CN   58: PN: WO0185782 FIGURE: 18 claimed sequence
CN   CDC-H
CN   DEX 500
CN   Dextran 1.5
CN   Dextran 10
CN   Dextran 1000
CN   Dextran 110
CN   Dextran 15
CN   Dextran 150
CN   Dextran 2000
CN   Dextran 250
CN   Dextran 3000
CN   Dextran 40
CN   Dextran 45
CN   Dextran 500
CN   Dextran 60
CN   Dextran 70
CN   Dextran 75
CN   Dextran B 512
CN   Dextran B1355
CN   Dextran D 10
CN   Dextran PL 1S
CN   Dextran PT 25
CN   Dextran PVD
CN   Dextran RMI
CN   Dextran T 10
CN   Dextran T 110
CN   Dextran T 150
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CN Dextran T 20
CN Dextran T 2000
CN Dextran T 500
CN Dextran T 70
CN Dextranen
CN Dextraven
CN Eudextran
CN Expandex
CN Gentran
CN Hemodex
CN Hyscon
CN Hyskon
CN Infucoll
CN Intrader
CN Intradex
CN LMD
CN LMWD
CN Longasteril 70
CN LU 122
CN LVD
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

=> d que l3
L3 927 SEA FILE=REGISTRY ABB=ON PLU=ON 9004-54-0/CRN

=> file hcaplus; d que l15; d que l16; d que l17; d que l24; d que l29; d que l32
FILE 'HCAPLUS' ENTERED AT 16:45:24 ON 17 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 17 Sep 2002 VOL 137 ISS 12
FILE LAST UPDATED: 16 Sep 2002 (20020916/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

L3	927	SEA	FILE=REGISTRY	ABB=ON PLU=ON	9004-54-0/CRN
L4	4953	SEA	FILE=HCAPLUS	ABB=ON PLU=ON	L3
L5	30141	SEA	FILE=HCAPLUS	ABB=ON PLU=ON	DEXTRAN
L7	87267	SEA	FILE=HCAPLUS	ABB=ON PLU=ON	LUNG/CW

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L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L11        3338 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MUCUS/CT
L15           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (L7 OR L8 OR
                 L9 OR L10) AND L11


L3          927 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-54-0/CRN
L4         4953 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3
L5        30141 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DEXTRAN
L7        87267 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUNG/CW
L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L12           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SECRETIONS/CT
L16           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (L7 OR L8 OR
                 L9 OR L10) AND L12


L3          927 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-54-0/CRN
L4         4953 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3
L5        30141 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DEXTRAN
L7        87267 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUNG/CW
L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L13         607 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXPECTORANTS/CT
L17           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (L7 OR L8 OR
                 L9 OR L10) AND L13


L6       365392 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSACCHARIDES+NT/CT
L7        87267 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUNG/CW
L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L11        3338 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MUCUS/CT
L24          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND (L7 OR L8 OR L9 OR
                 L10) AND L11 AND PHARMAC?/SC,SX


L6       365392 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSACCHARIDES+NT/CT
L7        87267 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUNG/CW
L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L13         607 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXPECTORANTS/CT
L27          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND (L7 OR L8 OR L9 OR
                 L10) AND L13
L29          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 NOT (GENES OR INFECTION?
                 OR MATRIX)/TI


L3          927 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-54-0/CRN
L4         4953 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3
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L5        30141 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DEXTRAN
L7        87267 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUNG/CW
L8        11222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHI/CT
L9            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BRONCHIOLE/CT
L10        4916 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L30       19846 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MUCIN? OR MUCOUS?
L31           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (L7 OR L8 OR
                 L9 OR L10) AND L30
L32           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND DOGS/TI

=> s l15 or l17 or l24 or l29 or l32
L76          20 L15 OR L17 OR L24 OR L29 OR L32

=> file medline; d que l49
FILE 'MEDLINE' ENTERED AT 16:46:05 ON 17 SEP 2002

 FILE LAST UPDATED: 14 SEP 2002 (20020914/UP).  FILE COVERS 1958 TO DATE.

 On June 9, 2002, MEDLINE was reloaded.  See HELP RLOAD for details.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2002 vocabulary.  Enter HELP THESAURUS for details.

 THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
 SUBSTANCE IDENTIFICATION.

L33       256083 SEA FILE=MEDLINE ABB=ON  PLU=ON  POLYSACCHARIDES+NT/CT
L34       371931 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUNG DISEASES+NT/CT
L35         5738 SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCUS/CT
L45       122792 SEA FILE=MEDLINE ABB=ON  PLU=ON  L33/MAJ
L46       283437 SEA FILE=MEDLINE ABB=ON  PLU=ON  L34/MAJ
L49           1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L45 AND L46 AND (L35 (L)
                 DE/CT OR MUCOCILIARY CLEARANCE/CT)

=> file embase; d que l58
FILE 'EMBASE' ENTERED AT 16:46:11 ON 17 SEP 2002
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 FILE COVERS 1974 TO 13 Sep 2002 (20020913/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

L50        70742 SEA FILE=EMBASE ABB=ON  PLU=ON  POLYSACCHARIDE+NT/CT
L51       236280 SEA FILE=EMBASE ABB=ON  PLU=ON  LUNG DISEASE+NT/CT
L52        15972 SEA FILE=EMBASE ABB=ON  PLU=ON  CYSTIC FIBROSIS/CT
L53        41394 SEA FILE=EMBASE ABB=ON  PLU=ON  BRONCHUS DISEASE+NT/CT
L54         1988 SEA FILE=EMBASE ABB=ON  PLU=ON  MUCUS/CT
L55          748 SEA FILE=EMBASE ABB=ON  PLU=ON  BRONCHUS MUCUS/CT
L56         1343 SEA FILE=EMBASE ABB=ON  PLU=ON  MUCOCILIARY CLEARANCE/CT
L57            6 SEA FILE=EMBASE ABB=ON  PLU=ON  L50 AND (L51 OR L52 OR L53)
                 AND (L54 OR L55 OR L56)
L58            5 SEA FILE=EMBASE ABB=ON  PLU=ON  L57 NOT LUNG CANCER/CT
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```
=> file biosis; d que l65
FILE 'BIOSIS' ENTERED AT 16:47:36 ON 17 SEP 2002
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 11 September 2002 (20020911/ED)


L3          927 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-54-0/CRN
L59       50285 SEA FILE=BIOSIS ABB=ON  PLU=ON  L3 OR DEXTRAN OR POLYSACCHARIDE
                ?
L60      350912 SEA FILE=BIOSIS ABB=ON  PLU=ON  LUNG OR CYSTIC FIBROSIS OR
                BRONCH?
L61       25516 SEA FILE=BIOSIS ABB=ON  PLU=ON  MUCUS? OR MUCOUS? OR MUCOCILIAR
                Y
L64          17 SEA FILE=BIOSIS ABB=ON  PLU=ON  L59 AND L60 AND L61
L65           4 SEA FILE=BIOSIS ABB=ON  PLU=ON  L64 AND DEXTRAN/TI

=> file wpid; d que l75
FILE 'WPIDS' ENTERED AT 16:47:45 ON 17 SEP 2002
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FILE LAST UPDATED: 16 SEP 2002              <20020916/UP>
MOST RECENT DERWENT UPDATE            200259   <200259/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> The BATCH option for structure searches has been
    enabled in WPINDEX/WPIDS and WPIX  >>>

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY >>>

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,
    SEE http://www.derwent.com/dwpi/updates/dwpicov/index.html <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

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    GUIDES, PLEASE VISIT:
    http://www.derwent.com/userguides/dwpi_guide.html <<<


L66        4407 SEA FILE=WPIDS ABB=ON  PLU=ON  DEXTRAN
L67       14916 SEA FILE=WPIDS ABB=ON  PLU=ON  POLYSACCHARIDE?
L68       13793 SEA FILE=WPIDS ABB=ON  PLU=ON  LUNG
L69        2086 SEA FILE=WPIDS ABB=ON  PLU=ON  CYSTIC FIBROSIS
L70       10270 SEA FILE=WPIDS ABB=ON  PLU=ON  BRONCH?
L71        1659 SEA FILE=WPIDS ABB=ON  PLU=ON  ALVEOL?
L72        6846 SEA FILE=WPIDS ABB=ON  PLU=ON  MUCUS OR MUCOUS OR SPUTUM OR
                MUCOCILIAR?
L74          22 SEA FILE=WPIDS ABB=ON  PLU=ON  (L66 OR L67) AND (L68 OR L69 OR
                L70 OR L71) AND L72
L75          7 SEA FILE=WPIDS ABB=ON  PLU=ON  L74 AND (DEXTR? OR MONOMER OR
                ADHESION OR MUCOLYTIC)/TI
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=> dup rem l49 l76 l75 l58 l65
FILE 'MEDLINE' ENTERED AT 16:48:30 ON 17 SEP 2002

FILE 'HCAPLUS' ENTERED AT 16:48:30 ON 17 SEP 2002
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PROCESSING COMPLETED FOR L49
PROCESSING COMPLETED FOR L76
PROCESSING COMPLETED FOR L75
PROCESSING COMPLETED FOR L58
PROCESSING COMPLETED FOR L65
L77          32 DUP REM L49 L76 L75 L58 L65 (5 DUPLICATES REMOVED)
                ANSWER '1' FROM FILE MEDLINE
                ANSWERS '2-21' FROM FILE HCAPLUS
                ANSWERS '22-26' FROM FILE WPIDS
                ANSWERS '27-30' FROM FILE EMBASE
                ANSWERS '31-32' FROM FILE BIOSIS

=> d ibib ab l77 1-32

L77  ANSWER 1 OF 32     MEDLINE                              DUPLICATE 4
ACCESSION NUMBER:    1998176757     MEDLINE
DOCUMENT NUMBER:     98176757   PubMed ID: 9517580
TITLE:               Improved clearability of cystic fibrosis sputum with
                     dextran treatment in vitro.
AUTHOR:              Feng W; Garrett H; Speert D P; King M
CORPORATE SOURCE:    Pulmonary Research Group, University of Alberta, Edmonton,
                     Canada.
SOURCE:              AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE,
                     (1998 Mar) 157 (3 Pt 1) 710-4.
                     Journal code: 9421642. ISSN: 1073-449X.
PUB. COUNTRY:        United States
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH:         199804
ENTRY DATE:          Entered STN: 19980416
                     Last Updated on STN: 19980416
                     Entered Medline: 19980407
AB   Most patients with cystic fibrosis (CF) are infected by Pseudomonas
     aeruginosa. Dextran exhibits anti-adhesive effects in preventing
     attachment of P. aeruginosa to epithelial cells (1). The initial purpose
     of this study was to evaluate the potential of dextran to alter the
     rheology and ciliary transportability of CF sputum prior to initiation of
     a clinical trial in patients with CF. Sputum samples were collected from
     25 patients with CF not receiving rhDNase therapy for use in in vitro
     testing. Aliquots of CF sputum were treated with 10% vol. Ringer's or the
     same volume of Dextran 4000 to give a final concentration of 0.4% (4
     mg/ml) or 4% (40 mg/ml) dextran in the sputum. Dog mucus samples were
     collected from seven healthy, anesthetized dogs from the endotracheal tube
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cuff. Aliquots of dog mucus were subjected to the same concentrations of dextran as the CF sputum. All treated samples were incubated for 30 min at 37 degrees C, and their rheologic properties (viscoelasticity) were evaluated by magnetic microrheometry. For 17 of the sputum samples, frog palate mucociliary transportability was determined from sputum movement on the ciliated, mucus-depleted frog palate, relative to native frog mucus control. Spinnability (cohesiveness) was evaluated by the filancemeter technique for eight sputum samples. Overall, whether for CF sputum or healthy dog mucus, Dextran 4000 treatment significantly reduced viscoelasticity and increased predicted mucociliary and cough clearability. Direct measurements of sputum mucociliary clearability on frog palate increased significantly with 0.4% dextran and 4% dextran compared with saline control. Sputum spinnability (cohesiveness) decreased significantly with both dextran concentrations, too. The effects on viscoelasticity and spinnability were greater at 4% than at 0.4%. There was a significant positive correlation between spinnability and viscoelasticity, and negative relationships between spinnability and both forms of clearability as predicted from viscoelastic measurements. This study suggests that treatment with Dextran 4000 can reduce the crosslink density and cohesiveness of CF and improve mucociliary and cough clearability. Dextran 4000 is an inexpensive and nontoxic agent that may be of benefit in patients with CF lung disease and perhaps in other respiratory disease where mucus retention is an important feature.

L77 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
ACCESSION NUMBER: 2001:167786 HCAPLUS
DOCUMENT NUMBER: 134:212736
TITLE: Pharmaceutical compositions of charged **dextran** as a mucoactive agent for treatment of respiratory disorders
INVENTOR(S): King, Malcolm
PATENT ASSIGNEE(S): Governors of the University of Alberta, Can.
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001015672	A2	20010308	WO 2000-CA989	20000825
WO 2001015672	A3	20020228		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1212047	A2	20020612	EP 2000-954242	20000825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: US 1999-150605P P 19990826
WO 2000-CA989 W 20000825

AB The present invention is for a charged **dextran**, preferably **dextran** sulfate, as an improved mucoactive agent which can be used to improve viscoelasticity and clearance of respiratory tract mucus. The charged **dextran** can be used in the treatment of animals with

impaired mucus clearance, mucus retention and/or mucus hypersecretion, such as cystic fibrosis, chronic bronchitis, bronchiectasis, bronchiolitis and bronchial asthma. Related methods of treatment and pharmaceutical compns., particularly aerosolized **dextran** sulfate compns. are encompassed within the scope of the invention. For example, delivery of aerosolized **dextran** sulfate to canine airways led to reduced viscoelasticity in improved clearability of the tracheal mucus.

L77 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 1999:48630 HCAPLUS
DOCUMENT NUMBER: 130:76186
TITLE: Use of **dextran** and other polysaccharides to improve mucus clearance
INVENTOR(S): King, Malcolm; Speert, David P.
PATENT ASSIGNEE(S): The University of British Columbia, Can.; The University of Alberta
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9901141	A1	19990114	WO 1998-CA628	19980630
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2233805	AA	19981230	CA 1998-2233805	19980331
US 6339075	B1	20020115	US 1998-52614	19980331
AU 9880980	A1	19990125	AU 1998-80980	19980630
AU 741849	B2	20011213		
EP 988041	A1	20000329	EP 1998-930598	19980630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002032172	A1	20020314	US 2001-892636	20010628

PRIORITY APPLN. INFO.:
CA 1997-2209342 A 19970630
CA 1998-2233805 A 19980331
US 1998-52614 A1 19980331
WO 1998-CA628 W 19980630

AB Polysaccharides, e.g. **dextran**, are used to improve mucus clearance. In the invention, **dextran** has been shown to reduce viscoelasticity and increase mucus clearability of sputum of cystic fibrosis patients. **Dextran** also reduces viscoelasticity of healthy dog mucus. The invention therefore may be used to improve mucus clearance in cystic fibrosis patients and treat other conditions assocd. with defect in airway mucus clearance including chronic bronchitis, bronchiectasis, and bronchial asthma.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:539517 HCAPLUS
DOCUMENT NUMBER: 137:103921
TITLE: Use of an LTB4 antagonist for the treatment and/or

prevention of diseases caused by increased expression of mucin genes
INVENTOR(S): Anderskewitz, Ralf; Meade, Christopher John Montague; Birke, Franz; Jennewein, Hans Michael; Jung, Birgit
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma KG, Germany
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055065	A2	20020718	WO 2002-EP200309	20020115

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2001-1128 A 20010116
US 2001-266833P P 20010206

AB The invention discloses the use of LTB4 antagonist I or a pharmaceutically acceptable salt thereof for the prepn. of a medicament for the treatment and/or prevention of diseases caused by increased expression of mucin genes and/or hyperplasia of goblet cells induced by toxins of products of pathogenic bacteria in the bronchial or gastrointestinal epithelium.

L77 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:332204 HCAPLUS
DOCUMENT NUMBER: 136:345809
TITLE: Mucin-comprising vehicle for the transport of biologically-active agents
INVENTOR(S): Shukla, Ashok Kumar; Shukla, Mukta M.; Shukla, Amita M.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034763	A2	20020502	WO 2001-US50152	20011026

W: JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

US 6320030	B1	20011120	US 2000-696897	20001026
US 2002090721	A1	20020711	US 2001-754868	20010105
US 2002099005	A1	20020725	US 2001-767462	20010123

PRIORITY APPLN. INFO.: US 2000-696897 A 20001026
US 2001-754868 A 20010105
US 2001-767462 A 20010123

AB A vehicle for the transport of biol. active or therapeutic agents into

organisms, such as human beings, comprising mucin is described. The mucin component of the vehicle serves to enhance the transport of biol. active agents, such as therapeutic agents into living organisms; to control and/or improve the delivery of biol. active agents to cells, tissues, organs or organelles; to increase the level of specificity in targeting particular cells or cells types; and/or, to enhance the activity of such therapeutic agents once they enter an organism. The vehicle described in the present invention is used to carry and deliver biol. active agents and can be used for biochem., therapeutic, clin., or other applications in organisms and cells including, but not limited to, delivery of DNA, RNA, PNA, polynucleotides and proteins into cells, tissues or organisms; gene delivery applications; in vivo gene therapy, ex vivo gene therapy or in vitro gene therapy; customized therapeutics; vaccination of organisms; genetic vaccination of organisms; and delivery of pharmaceutical products or biol. active chem., biochem. or biol. agents into cells and organisms.

L77 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:616204 HCAPLUS
DOCUMENT NUMBER: 137:168277
TITLE: Detection and treatment of cancer
INVENTOR(S): Moro, Ricardo J.
PATENT ASSIGNEE(S): Can.
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont. of U.S. Ser. No. 920,654.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002110556	A1	20020815	US 2001-848141	20010503

PRIORITY APPLN. INFO.: US 1997-920654 A1 19970815
AB A method is described for treating cancer cells in a patient. The method comprises the steps of introducing .alpha.-fetoprotein (AFP) receptor antibodies to cancer cells in the patient. Then there is the step of reacting the AFP receptor antibodies with the AFP receptor of the cancer cells to inhibit growth of the cancer cells or kill the cancer cells.

L77 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:564827 HCAPLUS
DOCUMENT NUMBER: 135:147436
TITLE: Mucin synthesis inhibitors and their therapeutic use
INVENTOR(S): Zhou, Yuhong; Levitt, Roy C.; Nicolaides, Nicholas C.; Jones, Steve; McLane, Mike
PATENT ASSIGNEE(S): Magainin Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001054685	A1	20010802	WO 2001-US3078	20010131

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,

TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2001041685 A1 20011115 US 2001-774243 20010131
PRIORITY APPLN. INFO.: US 2000-179127P P 20000131
US 2000-193111P P 20000330
US 2000-230783P P 20000907
US 2000-242134P P 20001023
US 2000-252052P P 20001120
OTHER SOURCE(S): MARPAT 135:147436

AB Methods are provided for modulating mucin synthesis and the therapeutic application of compds. in controlling mucin over-prodn. assocd. with diseases such as chronic obstructive pulmonary diseases (COPD), including asthma and chronic bronchitis, inflammatory lung diseases, cystic fibrosis and acute or chronic respiratory infectious diseases.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:435244 HCAPLUS
DOCUMENT NUMBER: 135:42763
TITLE: Purification, characterization and therapeutic and diagnostic use of leukolysin
INVENTOR(S): Pei, Duanqing
PATENT ASSIGNEE(S): Regents of the University of Minnesota, USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042438	A2	20010614	WO 2000-US33763	20001213
WO 2001042438	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-170396P P 19991213

AB A novel compd., matrix metalloproteinase 25 (MM25, also called MT6-MMP or leukolysin), and therapeutic methods for treating conditions assocd. with the presence or absence of leukolysin is provided. Leukolysin was identified from human peripheral blood leukocytes and found to be specifically expressed by resting neutrophils. Leukolysin encodes for 562 residues with common MMP domains. Amino acid sequence of leukolysin is provided. Leukolysin expression at the mRNA level was localized to neutrophils only. Also provided are methods to detect or monitor inflammatory disease by detg. the presence or amt. of leukolysin in a physiol. sample.

L77 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:258908 HCAPLUS

DOCUMENT NUMBER: 135:221222
TITLE: Nebulized heparin in Burkholderia cepacia colonized adult cystic fibrosis patients
AUTHOR(S): Ledson, M.; Gallagher, M.; Hart, C. A.; Walshaw, M.
CORPORATE SOURCE: The Regional Adult Cystic Fibrosis Unit, The Cardiothoracic Centre, Liverpool, UK
SOURCE: European Respiratory Journal (2001), 17(1), 36-38
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: European Respiratory Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Viscous neg. charged cystic fibrosis (CF) sputum allows colonization by pathogens, inducing a chronic inflammatory response. Heparin thins sputum by decreasing the mucin mol. amino group neg. charge, altering its intermol. hydrogen bonding, and ionically shielding its polyionic moieties. It also has an anti-inflammatory effect within the lung. It may, therefore, be useful in the treatment of CF patients. In order to test this, six fully informed Burkholderia cepacia colonized stable adult CF patients, received 25,000 IU nebulized heparin sulfate daily for 7 days. Subjective sputum parameters, spirometry, platelets, coagulation parameters, and serum and sputum interleukin (IL)-6 and -8 were measured before and after treatment. All patients tolerated the heparin with no evidence of bleeding, thrombocytopenia or change in coagulation parameters. There was no change in spirometry, but a redn. in interleukins (sputum IL-6, p=0.01; sputum IL-8, p=0.002; serum IL-6, p=0.02; serum IL-8, p=0.02). Sputum was easier to expectorate (p<0.04), with a trend towards thinner sputum (p=0.07) but no change in sputum vol. Heparin therapy was well tolerated and had an anti-inflammatory effect, with subjective sputum mucolysis. Further studies are necessary to define the role of heparin in the treatment of cystic fibrosis patients.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:608596 HCAPLUS
DOCUMENT NUMBER: 133:187988
TITLE: Methods and compositions for altering mucus secretion
INVENTOR(S): Li, Yuehua; Martin, Linda D.; Adler, Kenneth B.
PATENT ASSIGNEE(S): North Carolina State University, USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050062	A2	20000831	WO 2000-US5050	20000224
WO 2000050062	A3	20001221		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1154786	A2	20011121	EP 2000-912034	20000224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.: US 1999-256154 A 19990224
WO 2000-US5050 W 20000224

AB Methods and compds. for increasing or decreasing mucus secretion in subjects, and particularly mucus secretion in the airways, are described. The use of compds. that modulate MARCKS protein-related mucus secretion is described. Methods of screening compds. for the ability to increase or decrease mucus secretion are also described.

L77 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:830323 HCAPLUS
DOCUMENT NUMBER: 134:13334
TITLE: Use of glycosaminoglycans-degrading enzymes for management of airway associated diseases
INVENTOR(S): Yacoby-Zeevi, Oron
PATENT ASSIGNEE(S): Insight Strategy & Marketing Ltd., Israel
SOURCE: U.S., 13 pp., Cont.-in-part of U.S. 5,968,822.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 15
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6153187	A	20001128	US 1998-46475	19980325
US 5968822	A	19991019	US 1997-922170	19970902
US 2002064858	A1	20020530	US 1998-140888	19980827
US 6423312	B1	20020723		
US 2001006630	A1	20010705	US 1999-260037	19990302
WO 9948478	A1	19990930	WO 1999-US6189	19990322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9931077	A1	19991018	AU 1999-31077	19990322
US 2002088019	A1	20020704	US 2001-978297	20011017

PRIORITY APPLN. INFO.:
US 1997-922170 A2 19970902
US 1998-46475 A1 19980325
US 1998-140888 A2 19980827
US 1999-260037 A2 19990302
WO 1999-US6189 W 19990322
US 2000-240037P P 20001016

AB Disclosed is a method of managing a patient having an accumulation of mucoid, mucopurulent or purulent material contg. glycosaminoglycans, wherein the method comprises the step of administering at least one glycosaminoglycans degrading enzyme to the patient in an amt. therapeutically effective to reduce at least one of the following: the viscoelasticity of the material, pathogens infectivity and inflammation. An article of manuf. comprising an inhaler including, as an active ingredient, at least one glycosaminoglycans degrading enzyme for generating aerosols including the enzyme for management a patient having an accumulation of mucoid, mucopurulent or purulent material contg. glycosaminoglycans is also disclosed. Sputum samples collected from cystic fibrosis patients were incubated with heparinase II and DNase for examine the changes of viscosities of the sputum samples during the

incubation.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:528183 HCAPLUS
DOCUMENT NUMBER: 133:359052
TITLE: Effects of **dextran** sulfate on tracheal mucociliary velocity in **dogs**
AUTHOR(S): Sudo, E.; Boyd, W. A.; King, M.
CORPORATE SOURCE: Pulmonary Research Group, University of Alberta, Edmonton, AB, Can.
SOURCE: Journal of Aerosol Medicine (2000), 13(2), 87-96
CODEN: JAEMEP; ISSN: 0894-2684
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have shown that low mol. wt. **dextran**, as a potential mucolytic agent, reduced the viscoelasticity and spinnability of cystic fibrosis (CF) sputum and improved its ciliary transportability in vitro; it also reduced viscoelasticity of healthy dog mucus in in vitro testing. In anesthetized dogs, **dextran** administered by aerosol at 65 mg/mL increased tracheal mucus velocity, but this increase was not sustained for higher concns. The purpose of the present study is to evaluate whether low mol. wt. **dextran** sulfate, a charged oligosaccharide, exhibits similar effects to previously tested neutral **dextran** when administered by aerosol to anesthetized dogs in terms of mucus rheol. and mucociliary clearance rate. Healthy mongrel dogs were anesthetized with pentobarbital and intubated. Aerosols of Ringer's soln. or **dextran** sulfate (m.w. 5000) dissolved in Ringer's were generated by Pari LC STAR nebulizer, and delivered during 30-min periods of spontaneous breathing. Tracheal transepithelial p.d. (PD, using agar filled electrodes) and tracheal mucociliary velocity (TMV, by charcoal marker particle transport) were measured under bronchoscopic control, and mucus for viscoelasticity anal. by magnetic rheometry was collected by the endotracheal tube method. We performed expts. in seven dogs, involving 30-min administrations of aerosol, sepd. by 30-min periods of no aerosol. All dogs received inhalations of 6.5 mg/mL, 20 mg/mL, and 65 mg/mL **dextran** sulfate. Tracheal mucus viscoelasticity (av. log G* over 1-100 rad/s) decreased progressively with increasing dose of **dextran** sulfate; for the highest concn. (65 mg/mL), log G* decreased by a factor of 2.61 ($p = 0.021$). A modest increase in the TMV was obsd. for the first dose of **dextran** sulfate (128% of baseline at 6.5 mg/mL, $p = 0.066$); thereafter TMV was stable. PD increased significantly at each concn. of **dextran** sulfate compared with Ringer control; however, there was no addnl. change between the three groups. The solids content of collected airway fluid (%SC) was gradually increased during successive 30-min **dextran** sulfate aerosols, indicating a significant residence time for the **dextran** in the mucus, and correlating with the decrease in viscoelasticity. These results suggest that **dextran** sulfate may be potentially of therapeutic value as a mucolytic agent, assisting mucus clearance by cough and physiotherapy, although whether it stimulates mucociliary clearance remains to be proven.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:626027 HCAPLUS
DOCUMENT NUMBER: 131:252572
TITLE: Use of glycosaminoglycan-degrading enzymes for

management of airway-associated diseases
INVENTOR(S): Yacoby-Zeevi, Oron
PATENT ASSIGNEE(S): Insight Strategy & Marketing Ltd., Israel; Friedman, Mark M.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 15
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9948478	A1	19990930	WO 1999-US6189	19990322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6153187	A	20001128	US 1998-46475	19980325
AU 9931077	A1	19991018	AU 1999-31077	19990322

PRIORITY APPLN. INFO.:
US 1998-46475 A 19980325
US 1997-922170 A2 19970902
WO 1999-US6189 W 19990322

AB A method of managing a patient having an accumulation of mucoid, mucopurulent, or purulent material contg. glycosaminoglycans comprises administering at least one glycosaminoglycan-degrading enzyme to the patient in an amt. therapeutically effective to reduce at least one of the following: the viscoelasticity of the material, pathogen infectivity, and inflammation. An article of manuf. is provided which comprises an inhaler including, as an active ingredient, at least one glycosaminoglycan-degrading enzyme for generating aerosols including the enzyme for management of a patient having an accumulation of mucoid, mucopurulent, or purulent material contg. glycosaminoglycans.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:223988 HCAPLUS
DOCUMENT NUMBER: 129:555
TITLE: Heparin accelerates the inhibition of cathepsin G by mucus proteinase inhibitor: potent effect of O-butyrylated heparin
AUTHOR(S): Ermolieff, Jacques; Duranton, Jerome; Petitou, Maurice; Bieth, Joseph G.
CORPORATE SOURCE: Laboratoire d'Enzymologie, INSERM Unite 392, Universite Louis Pasteur de Strasbourg, Illkirch, F-67400, Fr.
SOURCE: Biochemical Journal (1998), 330(3), 1369-1374
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Heparin tightly binds cathepsin G and so protects the enzyme from inhibition by .alpha.1-antichymotrypsin, .alpha.1-proteinase inhibitor and eglin c, three proteins which do not bind heparin [Ermolieff J., Boudier C., Laine A., Meyer B. and Bieth J. G. (1994) J. Biol. Chem. 269,

29502-29508]. Here we show that heparin no longer protects cathepsin G from inhibition when the enzyme is reacted with mucus proteinase inhibitor (MPI), a heparin-binding protein. Heparin fragments of Mr = 4500 and 8100 and O-butyrylated heparin of Mr = 8000 form tight complexes with cathepsin G (Kd = 0.5-2.2 nM) and MPI (Kd = 0.4-0.8 .mu.M) and accelerate the MPI-promoted inhibition of cathepsin G by a factor of 17-26. They also accelerate the inhibition of neutrophil elastase and pancreatic chymotrypsin. The rate acceleration is due to the binding of heparin to MPI. Butyrylation of heparin slightly decreases its affinity for cathepsin G and MPI but sharply decreases the ionic interactions between the pos. charged proteins and the neg. charged polyanion. The butyrylated heparin deriv. is the best rate accelerator: it increases the rate const. for the MPI-induced inhibition of cathepsin G and elastase by factors of 26 and 23, resp. This, together with the fact that it has a good bioavailability and a very low anticoagulant activity, suggests that it might be an adjuvant of MPI-based therapy of cystic fibrosis.

L77 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:107949 HCAPLUS
DOCUMENT NUMBER: 126:210579
TITLE: Transcriptional activation of mucin by Pseudomonas aeruginosa lipopolysaccharide in the pathogenesis of cystic fibrosis lung disease
AUTHOR(S): Li, Jian-Dong; Dohrman, Austin F.; Gallup, Marianne; Miyata, Susumu; Gum, James R.; Kim, Young S.; nadel, Jay A.; Prince, Alice; Basbaum, Carol B.
CORPORATE SOURCE: Department Anatomy, University California, San Francisco, CA, 94143, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1997), 94(3), 967-972
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An unresolved question in cystic fibrosis (CF) research is how mutations of the CF transmembrane conductance regulator, a Cl ion channel, cause airway mucus obstruction leading to fatal lung disease. Recent evidence has linked the CF transmembrane conductance regulator mutation to the onset and persistence of Pseudomonas aeruginosa infection in the airways, and here the authors provide evidence directly linking P. aeruginosa infection to mucus overprodn. The authors show that P. aeruginosa lipopolysaccharide profoundly upregulates transcription of the mucin gene MUC 2 in epithelial cells via inducible enhancer elements and that this effect is blocked by the tyrosine kinase inhibitors genistein and tyrphostin AG 126. These findings improve the authors' understanding of CF pathogenesis and suggest that the attenuation of mucin prodn. by lipopolysaccharide antagonists and tyrosine kinase inhibitors could reduce morbidity and mortality in this disease.

L77 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:462774 HCAPLUS
DOCUMENT NUMBER: 119:62774
TITLE: Medicinal use of polysaccharide-of-exocarpium citri rubrum
AUTHOR(S): Zhou, Bowen; Hu, Wenya; Wu, Junjing
CORPORATE SOURCE: 1st Affil. Hosp., Zhongshan Med. Univ., Guangzhou, 510080, Peop. Rep. China
SOURCE: Zhongguo Yaoxue Zazhi (Beijing, China) (1993), 28(3), 135-6
CODEN: ZYZAEU; ISSN: 1001-2494
DOCUMENT TYPE: Journal

LANGUAGE: Chinese
AB Pharmacol. studies indicated that polysaccharides of Citrus grandis have antitussive and expectorant actions in mice and have therapeutic effects against chronic bronchitis and pulmonary obstructive emphysema in humans.

L77 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:604956 HCAPLUS
DOCUMENT NUMBER: 117:204956
TITLE: Effects of ambroxol hydrochloride on the guinea pig tracheal mucous secretion and the rat pulmonary surfactant secretion
AUTHOR(S): Uchida, Masayuki; Noguchi, Yuji; Arakawa, Reijiroh; Hashimoto, Yoshiko; Ikarashi, Yasuko; Honda, Hideo
CORPORATE SOURCE: Pharmacol. Res. Lab., Grelan Pharm. Co., Ltd., Tokyo, 154, Japan
SOURCE: Nippon Yakurigaku Zasshi (1992), 100(4), 293-300
CODEN: NYKZAU; ISSN: 0015-5691
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Oral administration of ambroxol (10, 30, and 100 mg/kg) significantly increased the no. of active goblet cells in guinea pig tracheal epithelium and total mucopolysaccharide level. Ambroxol also significantly increased the neutral mucopolysaccharide level and PAS-pos. substance in the guinea pig tracheal submucosal glands. Ambroxol did not show a significant effect on the content of the total phosphatidylcholine in rat lung lavage fluid, while ambroxol significantly increased the ratio of disatd. phosphatidylcholine to total phosphatidylcholine. These results suggest that ambroxol increases both the tracheal mucous secretion, esp. the neutral mucopolysaccharide, and pulmonary surfactant secretion and these effects reflect part of the expectorant mechanism of the drug.

L77 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:441697 HCAPLUS
DOCUMENT NUMBER: 115:41697
TITLE: Evaluation of bronchospasmolytic, antiallergic, anti-inflammatory, mucolytic and antitussive activities of decasilate in experimental models
AUTHOR(S): Ucelay, M.; Labeaga, L.; Orjales, A.; Zubiaur, L.; Quintana, A.
CORPORATE SOURCE: Res. Dep., FAES S. A., Bilbao, E-48080, Spain
SOURCE: Arzneim.-Forsch. (1991), 41(5), 528-32
CODEN: ARZNAD; ISSN: 0004-4172
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The bronchospasmolytic, antiallergic, anti-inflammatory, mucolytic and antitussive activities of decasilate (I) have been evaluated using different exptl. models. Decasilate showed a remarkable spasmolytic activity against histamine-induced contractions in the isolated guinea-pig tracheal prepn. with an IC50 of 2.7 .times. 10-6 mol/L. In addn., the oral administration of decasilate (5-30 mg.kg-1) significantly reduced the histamine aerosol-induced bronchospasm in guinea-pigs. Decasilate had a preventive effect against antigen-induced contractions of ileum segments from sensitized guinea-pigs (EC50 8.0 .times. 10-6 mol/L) and relaxed then when added after the antigen challenge (IC50 9.5 .times. 10-7 mol/L). Both carrageenin- and **dextran**-induced rat hind paw edemas were significantly reduced by the oral administration of decasilate with ED50 values of 169.5 and 34.5 mg.kg-1, resp. However, it was ineffective against the cotton pellet-induced granuloma in the rat. Furthermore, decasilate had a significant mucolytic activity in rabbits and reduced the no. of tussive seizures induced by an aerosol of citric acid in guinea-pigs. The pharmacol. profile of decasilate suggests that it might

be useful in the management of chronic bronchitis.

L77 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:129110 HCAPLUS
DOCUMENT NUMBER: 114:129110
TITLE: Dual-action pharmaceutical tablet
INVENTOR(S): Dansereau, Richard John; Kane, Michael John
PATENT ASSIGNEE(S): Norwich Eaton Pharmaceuticals, Inc., USA
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 384514	A2	19900829	EP 1990-200313	19900212
EP 384514	A3	19910403		
EP 384514	B1	19931124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
US 5032406	A	19910716	US 1989-314672	19890221
AT 97571	E	19931215	AT 1990-200313	19900212
ES 2060923	T3	19941201	ES 1990-200313	19900212
CA 2010037	AA	19900821	CA 1990-2010037	19900214
CA 2010037	C	19951031		
AU 9049970	A1	19900830	AU 1990-49970	19900220
AU 632793	B2	19930114		
ZA 9001261	A	19901128	ZA 1990-1261	19900220
JP 03200724	A2	19910902	JP 1990-39556	19900220
JP 2895146	B2	19990524		

PRIORITY APPLN. INFO.: US 1989-314672 19890221
EP 1990-200313 19900212

AB The title tablet comprises (1) an outer tablet of a 1st dose of active ingredient dispersed in a pH-independent hydrophilic polymer matrix, and (2) an inner tablet of a 2nd dose of active ingredient in a rapidly disintegrating excipient base. The dual-action tablet is esp. efficacious for those active ingredients of half-lives <2 h and which experience decreased absorption efficiency in the lower gastrointestinal tract. On administration, the outer tablet provides a controlled-release of active ingredient while the inner tablet gives a 2nd dose of active ingredient after the outer tablet has partially dissolved. An expectorant compn. contains (1) an inner tablet of guaifenesin 175.0, microcryst. cellulose 35.1, crosspovidone 35.0, polyvinylpyrrolidone 7.3, talc 2.3, and Zn stearate 2.3 mg; and (2) an outer tablet of guaifenesin 425.0, hydroxypropylmethyl cellulose K4M 139.9, stearic acid 30.0, and Zn stearate 5.4 mg. Dual action tablets for administration of procainamide-HCl and of KCl (for K supplementation) are also described.

L77 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:16254 HCAPLUS
DOCUMENT NUMBER: 112:16254
TITLE: Targeted delivery of drugs and diagnostic agents using carriers which promote endothelial and epithelial uptake and lesional localization
INVENTOR(S): Ranney, David F.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8807365	A2	19881006	WO 1988-US1096	19880330
WO 8807365	A3	19881117		
W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US				
RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
US 4925678	A	19900515	US 1987-33432	19870401
AU 8816275	A1	19881102	AU 1988-16275	19880330
AU 607494	B2	19910307		
EP 352295	A1	19900131	EP 1988-903702	19880330
EP 352295	B1	19930616		
EP 352295	B2	19960410		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 04504404	T2	19920806	JP 1988-503579	19880330
JP 2886171	B2	19990426		
AT 90554	E	19930715	AT 1988-903702	19880330
CA 1324080	A1	19931109	CA 1988-565119	19880426
US 5108759	A	19920428	US 1989-448121	19891208

PRIORITY APPLN. INFO.: US 1987-33432 19870401
EP 1988-903702 19880330
WO 1988-US1096 19880330

AB Targeted delivery systems comprise drugs or diagnostic agents and carriers which recognize determinants present on normal or diseased endothelium. This induces the following effects in vivo: (1) rapid endothelial envelopment of the carrier; (2) sequestration of the carrier and protection of the entrapped agent from early blood clearance; (3) acceleration of the carrier's transport across the vascular endothelium into the interstitium; and (4) improvement of drug delivery across the endothelium, so that a lower total drug dose is required. Aq. cisplatin (I) was mixed with heparin at a 1:1.1 wt. ratio and ultrasonicated to form a heparin-coated I microemulsion with particle sizes of 0.2-1.5 .mu.m, which was stable for >1 h at 22.degree.. Mice receiving this emulsion i.v. showed moderate to intense concn. of I in the lung interstitia, alveolar pneumocytes, respiratory epithelia, and lymph nodes, but low I concns. in the liver, whereas mice receiving std. aq. I showed intense I concn. in the liver and almost no I in the lungs. Thus high concns. of I (which are usually toxic to endothelium) can be successfully reformulated as a heparin microemulsion, and the heparin component can induce endothelial binding and transcellular uptake of the complexes in a fashion that protects the endothelium from the toxic effects of the drug.

L77 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:62482 HCAPLUS
DOCUMENT NUMBER: 108:62482
TITLE: Pharmaceutical compositions for inhalation containing an excipient from microgranules of a conglomerate of solid water-soluble diluents and a lubricant for bronchopulmonary disorders
INVENTOR(S): Chiesi, Paolo; Pavesi, Luciana
PATENT ASSIGNEE(S): Chiesi Farmaceutici S.p.A., Italy
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8705213	A1	19870911	WO 1987-EP118	19870227
W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US				
AU 8771645	A1	19870928	AU 1987-71645	19870227
AU 597964	B2	19900614		
EP 239798	A1	19871007	EP 1987-102816	19870227
EP 239798	B1	19900926		
R: ES, GR				
EP 258356	A1	19880309	EP 1987-901468	19870227
EP 258356	B1	19930922		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 63502895	T2	19881027	JP 1987-501911	19870227
HU 46533	A2	19881128	HU 1987-1760	19870227
HU 202748	B	19910429		
ES 2031839	T3	19930101	ES 1987-102816	19870227
AT 94755	E	19931015	AT 1987-901468	19870227
ZA 8701523	A	19871028	ZA 1987-1523	19870303
CA 1297012	A1	19920310	CA 1987-531054	19870303
FI 8704710	A	19871026	FI 1987-4710	19871026
FI 90015	B	19930915		
FI 90015	C	19931227		
NO 8704590	A	19871230	NO 1987-4590	19871103
PRIORITY APPLN. INFO.:			IT 1986-19625	19860304
			EP 1987-901468	19870227
			WO 1987-EP118	19870227

AB Powders for inhalation are provided with microgranules of a conglomerate of .gtoreq.1 solid H2O-sol. diluents and a lubricant. Beclomethasone dipropionate with lactose conglomerated with Mg stearate or with com. available microcryst. lactose was tested in 2 groups of inhaler devices. In the case of the conglomerate, the residual quantity of powder required to enable a wt. distribution within acceptable limit was lower (300 mg) than that required with the simple microcryst. excipient (500 mg).

L77 ANSWER 22 OF 32 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-303912 [34] WPIDS
DOC. NO. CPI: C2002-088337
TITLE: Treatment of allergies, autoimmunity, **adhesion** cascade, metastatic or coronary cascade diseases e.g. arthritis comprises administration of at least one complex carbohydrate e.g. chondroitin sulfate.
DERWENT CLASS: A96 B04 D21
INVENTOR(S): BROWN, H G; BROWN, K K; COOPER, C A
PATENT ASSIGNEE(S): (DERM-N) DERMAL RES LAB INC
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002009728	A1	20020207	(200234)*	EN	61
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001081368	A	20020213	(200238)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002009728	A1	WO 2001-US41473	20010731
AU 2001081368	A	AU 2001-81368	20010731

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001081368	A	Based on	WO 200209728

PRIORITY APPLN. INFO: US 2000-222046P 20000731

AB WO 200209728 A UPAB: 20020528

NOVELTY - Treatment/prevention of diseases and conditions associated with allergies, autoimmunity, adhesion, metastatic or coronary cascades involves administration of at least one complex carbohydrate or a composition comprising at least one low purity or cosmetic grade complex carbohydrate and at least one transdermal or transmucosal carrier to deliver the complex carbohydrate into the blood stream.

DETAILED DESCRIPTION - Treatment or prevention of diseases associated with allergies, autoimmunity, adhesion cascade, metastatic cascade or coronary cascade involves: administration of at least one complex carbohydrate as sole active ingredient or a composition comprising at least one low purity or cosmetic grade complex carbohydrate as an active ingredient and at least one transdermal or transmucosal carrier to deliver the complex carbohydrate into the blood stream. The complex carbohydrate is oligosaccharide, sialylated oligosaccharide, **polysaccharide** or glycosaminoglycan.

INDEPENDENT CLAIMS are also included for the following:

(1) interrupting the adhesion cascade by blocking the ability of leukocyte to bind to blood vessel walls, involving contacting the complex carbohydrate with receptor sites on leukocytes to inhibit the ability of the leukocyte to bind to the blood vessel walls to inhibit the motility to the site of trauma and thus reducing pain and swelling;

(2) a bandage comprising either at least one complex carbohydrate and the carrier resulting in topical or mucosal delivery of the molecules, through the skin or **mucous** membranes of mammals and into the bloodstream or comprising only the complex carbohydrate added to it or imbedded in it. The bandage is applied onto an area requiring treatment; and

(3) blocking the ability of tumor cells to tether to blood vessel walls by contacting the complex carbohydrates with receptor sites on tumor cells to inhibit the ability of the tumor cells to bind to the blood vessel walls and inhibit the tumor motility which, in turn, inhibits the potential for metastasis.

ACTIVITY - Immunosuppressive; Antiarthritic; Antirheumatic; Antiinflammatory; Antiulcer; Virucide; Antiallergic; Nootropic; Dermatological; Vasotropic; Vulnerary; Analgesic; Gynecological; Antiasthmatic; Antipruritic; Thrombolytic; Anticonvulsant; Tranquilizer; Neuroleptic; Neuroprotective; Antiparkinsonian; Cerebroprotective; Hypotensive; Cardiant; Anticoagulant; Anti-HIV; Antibacterial; Virucide; Antiseborrheic; Cytostatic; Antidiabetic; Antidepressant; Osteopathic.

MECHANISM OF ACTION - Macrophage inhibitor; T-cell inhibitor; Metastasis inhibitor; Tumor cell blocker; Amyloid plaque inhibitor; Leukocyte (CD44 and CD31) and RHAMM agonist; Leukocyte inhibitor.

USE - In the treatment of diseases associated with allergies, autoimmunity, adhesion cascade, metastatic cascade or coronary cascade e.g. arthritis, gastritis, colitis, stomach or intestinal ulcer, esophagitis, **bronchitis**, common cold, rhinitis, sore throat, tonsillitis, tendonitis, fibromyalgia, chronic fatigue syndrome,

interstitial cystitis, polymyositis, autism, Lupus Erythematosis, headache, pancreatitis, anaphylaxis, vaginitis, hemorrhoids, sunburn, heat burn, temporomandibular joint (TMJ) condition, gingivitis, dental caries, dental pain, post surgical pain, menstrual pain, extremity cramp, pre and post partum pain, itching associated with allergies and hypersensitivity, asthma, emphysema, thrombosis, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder (ADHD), Turret's Syndrome, multiple sclerosis, Amyotrophic Lateral Sclerosis (ALS) or Lou Gehrig's Disease, Parkinson's Disease, Bell's Palsy, cerebral palsy, peripheral neuropathy, high blood pressure, heart disease, heart attack, vasculitis, stroke, increased degradation of spinal nerves post spinal cord injury, head and brain trauma post injury, encephalitis, epilepsy, Guillain-Barre syndrome, Human Immunodeficiency Virus infection, yeast infections, bacterial infections, viral infections, meningitis, peripheral neuropathy, Creuztfeldt-Jacob Disease, acne, cognitive disorder, adhesion formation post surgery or chemotherapy, scar formation post surgery, non-healing wounds, decubutis ulcers, irritation of nerve ganglion formation, Alzheimer's disease, human immunodeficiency disease, ovarian cancer, lick granulomas, hot spots, eczema, wrinkling of skin, diabetes, scleroderma, skin problems, osteoarthritis, rashes, dementia, pain associated with cervical disc degeneration and hair loss; for inhibiting macrophages; for reducing scar tissue; as bandage (all claimed). Also in the treatment of rheumatoid arthritis, irritated or inflamed muscles, cramped muscles, inflamed tendons, inflamed nerves or nerve bundles (e.g. inflamed ganglion, trigger points), swollen and painful joints, inflamed bladder, bruised tissue, tired feet, open wounds, decubitis ulcers, inflamed stomach or intestinal lining, inflamed **bronchi** or esophagial lining, adhesions formed after surgery, trauma or chemotherapy, pain post surgery, dental work or injury, plaques formed on veins or arteries leading to heart disease and stroke, inflammation associated with Alzheimer's Disease, head or brain trauma, degration of the spinal cord post spinal cord injury, pain associated with insect bites or stings, tumor formation and tumor metastasis. The composition stimulates the healing of open wounds, increases cognitive function, thickens hair and fingernails, increases suppleness of skin.

ADVANTAGE - The method does not require pharmaceutical grade complex carbohydrates for the administration. As the composition is applied topically, orally, mucosally or parenterally the contaminants do not produce any adverse reactions.

Dwg.0/2

L77 ANSWER 23 OF 32 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-164495 [21] WPIDS
DOC. NO. CPI: C2002-050810
TITLE: Pharmaceutical composition useful for treating a respiratory disorder e.g. **cystic fibrosis**, asthma comprises **dextrin**.
DERWENT CLASS: B04
INVENTOR(S): ALTON, E; STERN, M
PATENT ASSIGNEE(S): (INNO-N) INNOVATA BIOMED LTD
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002002126	A1	20020110	(200221)*	EN	22

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001069263 A 20020114 (200237)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002002126 A1		WO 2001-GB2887	20010702
AU 2001069263 A		AU 2001-69263	20010702

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001069263 A	Based on	WO 200202126

PRIORITY APPLN. INFO: GB 2001-1414 20010119; GB 2000-16133 20000701

AB WO 200202126 A UPAB: 20020403
NOVELTY - A pharmaceutical composition (A) comprises dextrin.
ACTIVITY - Cytostatic; Antiinflammatory; Antiasthmatic; Antibacterial.
The growth of the clinical strains of mucoid and non-mucoid Pseudomonas aeruginosa were treated with solutions of icodextrin (test) and mannitol (comparative) in phosphate buffer solution (PBS). The results for the bacterial cell growth inhibition expressed as % change for 5, 50 and 250 mg/ml of icodextrin/mannitol, when compared to control samples in which the bacteria were incubated with PBS alone were as follows: For non-mucoid Pseudomonas aeruginosa = 26/93, 4/85, -11/92; for mucoid Pseudomonas aeruginosa =11/104, 8/91, -34/76. Thus it was observed that icodextrin had an inhibitory effect while bacteria proliferated in the presence of saline.
MECHANISM OF ACTION - Airway surface liquid water absorption promoter.
USE - In the treatment of respiratory disorders e.g. **cystic fibrosis** (claimed), chronic **bronchitis**, asthma and **bronchiectasis**.
ADVANTAGE - The composition enhances water absorption in airway surface liquid and promotes the **mucus** clearance. Thus avoids the bacterial incubation in the **mucus** and subsequent infections responsible for the respiratory disorders. The composition is also effective against the non-mucoid organisms.
Dwg.0/0

L77 ANSWER 24 OF 32 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-582010 [65] WPIDS
DOC. NO. CPI: C2001-172535
TITLE: Adjuvant composition for modulating effect of medicinal substances administered onto mucosal surfaces for treating allergy, comprises **polysaccharide** with glucose **monomers** linked by beta-1,3 and beta-1,6 linkages.
DERWENT CLASS: B01 B04 D16
INVENTOR(S): BAKKE, H; BERSTAD, A K H; HANEBERG, B; HAUGEN, I L; HOLST, J; JANAKOVA, L; KORSVOLD, G E; OFTUNG, F; RAA, J
PATENT ASSIGNEE(S): (BIOT-N) BIOTEC ASA; (BAKK-I) BAKKE H; (BERS-I) BERSTAD A K H; (HANE-I) HANEBERG B; (HAUG-I) HAUGEN I L; (HOLS-I) HOLST J; (JANA-I) JANAKOVA L; (KORS-I) KORSVOLD G E; (OFTU-I) OFTUNG F; (RAAJ-I) RAA J
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001062283	A2	20010830	(200165)*	EN	19

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001040943 A 20010903 (200202)

US 2002009463 A1 20020124 (200210)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001062283	A2	WO 2001-IB144	20010202
AU 2001040943	A	AU 2001-40943	20010202
US 2002009463	A1	US 2000-511582	20000223

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001040943	A	Based on	WO 200162283

PRIORITY APPLN. INFO: US 2000-511582 20000223

AB WO 200162283 A UPAB: 20011108

NOVELTY - An adjuvant composition (I), comprising a **polysaccharide** consisting of glucose monomers linked together in branched chains by beta -1,3 linkages and beta -1,6 linkages which modulate the effect of medicinal substances (II) administered onto mucosal surfaces, is new.

ACTIVITY - Antiallergic; antiarthritic.

MECHANISM OF ACTION - Modulator of (II); vaccine (claimed); modulator of immune reactions to antigens which are in contact with mucosal surfaces in animals and humans.

To investigate the adjuvant effect of the beta -1,3, beta -1,6-glucan preparations, experimental influenza vaccine formulations were compared with regard to their ability to induce specific antibody response and to prime T-cells to proliferate when they were later exposed to vaccine antigens in vitro. The control vaccines contained either heat inactivated whole influenza virus without any adjuvant added or purified antigens of the same virus without adjuvant. The experimental vaccines were made from the same influenza virus vaccine preparations, but admixed with the novel adjuvants. Female BALB/c mice were immunized intranasally with one of the vaccine formulations four times at weekly intervals. The vaccines were administered as drops, with 30 micro l dose volumes in the nasal cavity of anesthetized mice. Non-immunized mice served as controls. One week after the last vaccine dose, samples of saliva, serum and spleen cells were collected for analysis of specific antibody responses and antigen specific T-cell proliferation. The results showed that the beta -1,3, beta -1,6-glucan products induced enhanced ability to produce specific antibodies against vaccine antigens which were co-administered onto mucosal surfaces, and furthermore, the beta -1,3, beta -1,6-glucan products primed T-cells in the spleen to respond more actively to later exposure of the same vaccine antigens.

USE - (I) is useful for modulating the effect of medicinal substances administered onto mucosal surfaces. (II) is useful for treating allergy or arthritis. (All claimed). (I) is useful as an adjuvant with vaccines.

Dwg.0/0

L77 ANSWER 25 OF 32 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-514769 [46] WPIDS
DOC. NO. CPI: C2000-153570
TITLE: Compositions comprising complex carbohydrates and optionally essential oils, useful for preventing or treating diseases associated with **adhesion**, metastatic and coronary cascades.
DERWENT CLASS: B04 D21 D22
INVENTOR(S): BROWN, H G; BROWN, K K; COOPER, C A; HENNESSY, K J
PATENT ASSIGNEE(S): (DERM-N) DERMAL RES LAB INC
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000044367	A2	20000803	(200046)*	EN	81

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000027457	A	20000818	(200057)	
EP 1165097	A2	20020102	(200209)	EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000044367	A2	WO 2000-US2328	20000201
AU 2000027457	A	AU 2000-27457	20000201
EP 1165097	A2	EP 2000-905836	20000201
		WO 2000-US2328	20000201

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000027457	A	Based on	WO 200044367
EP 1165097	A2	Based on	WO 200044367

PRIORITY APPLN. INFO: US 1999-166326P 19991119; US 1999-117988P 19990201; US 1999-127749P 19990405; US 1999-137098P 19990602; US 1999-142306P 19990703

AB WO 200044367 A UPAB: 20000921
NOVELTY - New composition comprises:
(a) at least one low purity complex carbohydrate selected from oligosaccharides, sialylated oligosaccharides, **polysaccharides** and glycosaminoglycans as an active ingredient; and
(b) optionally at least one essential oil to allow penetration of the dermis or **mucous** membranes of mammals by the complex carbohydrate.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) a method of inhibiting the adhesion cascade by administering at least one low purity complex carbohydrate, which blocks the binding of leukocytes to the epithelium during tethering, inhibits migration and extravasation of leukocytes to a site of trauma; and

(b) a method of inhibiting tumor formation and tumor metastasis by administering at least one low purity complex carbohydrate, which blocks the metastatic cascade to inhibit binding of tumor cells to the epithelium of blood vessel walls.

ACTIVITY - Antiallergic; dermatological; antiinflammatory; analgesic; antiarthritic; vulnerary; tranquilizer; antiasthmatic; antidiabetic; antiarteriosclerotic; nootropic; neuroprotective; cytostatic; virucide

MECHANISM OF ACTION - Inhibitor of cells binding to epithelium.

USE - For treating inflammation, pain or itching, resulting from e.g. arthritis, bursitis, athletic injuries, tendonitis, trauma, gastritis, colitis, esophagitis, **bronchitis**, sore throat, tonsilitis, tendonitis, fibromyalgia, temporomandibular joint condition, dental pain, bruising, poor circulation, muscle cramps, tired feet, allergies, poison ivy, insect bites/stings, asthma, anaphylaxis, surgery, childbirth, sunburn, burns, edema related to diabetes, debicutus ulcer, superficial cuts, open wounds, dry skin, psoriasis, Attention Deficit Hyperactivity Disorder, plaque formation associated with heart disease and stroke, increased degradation of spinal nerves post spinal cord injury, adhesion formation post surgery, scar formation post surgery, wound healing, ganglion formation, Alzheimer's disease, HIV, cancer, wrinkles, and hair loss. Also for treating or preventing tumors. (All claimed).

Dwg.0/0

L77 ANSWER 26 OF 32 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1982-10331E [06] WPIDS
TITLE: Carbohydrate derivs. useful as topical **mucolytic** agents non-absorbable by tissues and free from side effects.
DERWENT CLASS: A96 B04
INVENTOR(S): MALTZ, J E
PATENT ASSIGNEE(S): (TEXC-N) ETAB TEXCONTOR
COUNTRY COUNT: 14
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 45285	A	19820203	(198206)*	EN	27
R: AT BE CH DE GB LI LU NL SE					
FR 2485925	A	19820108	(198207)		
JP 58013522	A	19830126	(198310)		
US 4409138	A	19831011	(198343)		
EP 45285	B	19840425	(198418)	EN	
R: AT BE CH DE FR GB LU NL SE					
DE 3163287	G	19840530	(198423)		
CA 1168169	A	19840529	(198426)		
US 4559322	A	19851217	(198602)		
IT 1209419	B	19890716	(199136)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 45285	A	EP 1981-830099	19810619
US 4409138	A	US 1983-512679	19830711

PRIORITY APPLN. INFO: IT 1980-23161 19800701

AB EP 45285 A UPAB: 19930915

Carbohydrate derivs. of formula (I) and of mol. wt. 10000-300000 are new. In (I) A-B is a carbohydrate residue in which A and B are the same or different; Y is a radical to bond the SH to the carbohydrate residue; E is

an enzyme radical; R3 is the residue of a functional gp. able to bond the enzyme residue; R2 is a functional gp. to regulate the solubility of the prod., n is 1-2000; m is 0-1000; w is 1-100; and z is 0-10. Each carbohydrate unit is able to carry at least one enzyme residue and at least one SH gp.

Derivs. (I) have topical mucolytic activity esp. on secretions of the respiratory passages; they are not absorbed by the tissues that they contact, but can reach the gastrointestinal tract unaltered. In this tract they are metabolised to non-toxic materials and these can be completely eliminated. They do not have proteolytic effects or allergic side effects and they are compatible with antibiotics. Derivs (I) are useful for topical treatment of **bronchial** and related afflictions and torpid ulcers, for bladder washing in chronic infections, for treating acne by cleaning cell debris and for eliminating protein and mucopolysaccharide residues in contact lenses.

L77 ANSWER 27 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 3
ACCESSION NUMBER: 1999153292 EMBASE
TITLE: Effects of dextran on tracheal mucociliary velocity in dogs in vivo.
AUTHOR: Feng W.; Nakamura S.; Sudo E.; Lee M.M.; Shao A.; King M.
CORPORATE SOURCE: M. King, Pulmonary Research Group, 173 Heritage Medical Research Center, University of Alberta, Edmonton, Alta. T6G 2S2, Canada. malcolm.king@ualberta.ca
SOURCE: Pulmonary Pharmacology and Therapeutics, (1999) 12/1 (35-41).
Refs: 29
ISSN: 1094-5539 CODEN: PPTHFJ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB We have previously shown that dextran (molecular weight 4 kDa) is a potential mucolytic agent, reducing the viscoelasticity and spinnability of cystic fibrosis (CF) sputum and improving its mucociliary clearability during in vitro testing. We wished to see whether low molecular weight (LMW) dextran had similar effects on mucus rheology when administered by aerosol to living dogs, and whether the administration of dextran increased the rate of mucociliary clearance. Healthy mongrel dogs mere anesthetized with pentobarbital and intubated. After a 30-min Ringer aerosol delivery during spontaneous breathing, tracheal mucociliary velocity (TMV by charcoal marker particle transport) was measured under bronchoscopic control, and mucus for viscoelasticity analysis (magnetic rheometer) was collected by the endotracheal tube method. Then LMW dextran in Ringer vehicle was delivered by aerosol via the endotracheal tube, followed by the same procedures. We performed eight experiments in eight dogs, involving 30 min administrations of dextran aerosol; all dogs received inhalations of 20 mg/ml, 65 mg/ml, and 200 mg/ml dextran. Compared with Ringer control, TMV increased to 145% of control (P = 0.0417) at 65 mg/ml dextran. Mucus viscoelasticity (G*) significantly decreased to 19% of control (P = 0.0426) at 65 mg/ml. This in vivo study supports our previous in vitro testing that LMW dextran decreases the mucus viscoelasticity and increases the rate of mucociliary clearance. We estimate the dosage received by aerosol at 65 mg/ml to be within the effective concentration range studied in vitro, i.e. 10-15 mg/ml final concentration. The results are consistent with the proposed mechanism that the saccharide moieties in LMW dextran compete for hydrogen bonding sites with other mucous glycoproteins. These new hydrogen bonds are structurally

and theologically ineffective, thus reducing the overall cross-link density, and making the mucus more easily cleared by ciliary and cough mechanisms.

L77 ANSWER 28 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001129154 EMBASE
TITLE: Effect of phospholipid mixtures and surfactant formulations on rheology of polymeric gels, simulating mucus, at shear rates experienced in the tracheobronchial tree.
AUTHOR: Banerjee R.; Bellare J.R.; Puniyani R.R.
CORPORATE SOURCE: R. Banerjee, Cardiovascular Research Institute, University of California, San Francisco, CA 94118-1245, United States. rban@itsa.ucsf.edu
SOURCE: Biochemical Engineering Journal, (2001) 7/3 (195-200). Refs: 28
ISSN: 1369-703X CODEN: BEJOFV
PUBLISHER IDENT.: S 1369-703X(00)00124-8
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis
027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A surface active layer consisting mainly of phospholipids lines the human conducting airways. Dysfunction of this layer could play a role in the pathogenesis of chronic obstructive airway diseases like asthma and chronic bronchitis. Replacement therapy with exogenous surfactants is being considered in such conditions. The relationship between surfactants and mucus viscosity would be important for such an application. Respiratory mucus is composed of high molecular weight glycoprotein molecules which form temporary cross-links and entanglements to form a gel-like material. The present paper studies the interaction of three therapeutic surfactants - Exosurf, ALEC and Survanta; the main phospholipids of lung surfactant (1,2-dipalmitoyl phosphatidylcholine (PC), phosphatidylethanolamine (PE) and phosphatidylglycerol (PG)) as well as their binary mixtures (PCPE and PCPG) in a PC:(PE or PG) ratio of 2:3; on the viscosity of mucus gel simulants (MGS - a polymeric gel consisting mainly of gum tragacanth and simulating respiratory mucus). The surfactants were studied with respect to their ability to alter MGS viscosity at shear rates ranging from 0.1498 to 51.2s(-1) in a concentric cylinder viscometer at 37.degree.C. The change in viscosity of the MGS on incubation with surfactant versus shear rate was found be non-Newtonian and to follow a power law model (coefficient of regression R(2) .gtoreq. 0.9). The shear rates experienced by a surfactant mixture, while passing through the tracheobronchial tree, were then calculated by modelling the tracheobronchial tree as cylindrical branching tubes. The equation governing the flow of a power law fluid through a cylindrical pipe was used to determine the shear experienced by a surfactant infusion as it passes through various mucus lined branches of the tracheobronchial tree. The surfactants were then compared based on their ability to alter MGS viscosity at shear rates corresponding to that of large, medium and small bronchi, as calculated by the study. .COPYRGT. 2001 Elsevier Science B.V.

L77 ANSWER 29 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000378607 EMBASE
TITLE: Ciliary function.
AUTHOR: Van der Baan B.
CORPORATE SOURCE: B. Van der Baan, ENT Department, Univ. Med. Centrum

Utrecht, Vliegheiweg 6, NL-1272 PK Huizen, Netherlands.
vanderbaan@planet.nl
SOURCE: Acta Oto-Rhino-Laryngologica Belgica, (2000) 54/3 (293-298).
Refs: 5
ISSN: 0001-6497 CODEN: AORLAE
COUNTRY: Belgium
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 011 Otorhinolaryngology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Ciliary function. In this article a review is presented of the morphology and function of respiratory cilia and emphasis is placed on the importance of mucociliary clearance as the most important defense mechanism of the upper and lower airways. Physical factors and pharmacological substances which can influence ciliary activity and mucociliary transport are mentioned. Finally, a description is given of changes, mostly reversible, of the mucociliary transport system in infections and IgE-mediated allergy and of the, irreversible changes in congenital diseases like cystic fibrosis and primary ciliary dyskinesia, with some remarks as to the therapeutical consequences of these disturbances.

L77 ANSWER 30 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 79121517 EMBASE
DOCUMENT NUMBER: 1979121517
TITLE: [Bronchial fluidifying agents].
LES FLUIDIFIANTS BRONCHIQUES.
AUTHOR: Bonnaud F.; Germouty J.
CORPORATE SOURCE: Serv. Pathol Resp., CHU, 87031 Limoges, France
SOURCE: Gazette Medicale de France, (1979) 86/9 (901-908).
CODEN: GAMFA7
COUNTRY: France
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: French

L77 ANSWER 31 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:167001 BIOSIS
DOCUMENT NUMBER: PREV200200167001
TITLE: Use of **dextran** and other **polysaccharides** to improve **mucus** clearance.
AUTHOR(S): King, Malcolm (1); Speert, David P.
CORPORATE SOURCE: (1) Edmonton Canada
ASSIGNEE: The University of British Columbia, Vancouver, Canada; The University of Alberta, Alberta, Canada
PATENT INFORMATION: US 6339075 January 15, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan. 15, 2002) Vol. 1254, No. 3, pp. No Pagination. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB This invention relates to the use of **polysaccharide** such as **dextran** to improve **mucus** clearance. In the present invention, **dextran** has been shown to reduce viscoelasticity and increase **mucus** clearability of sputum of **cystic fibrosis** patients. **Dextran** also reduced viscoelasticity of healthy dog **mucus**. The present invention therefore may be used to improve **mucus** clearance in **cystic**

fibrosis patients and treat other conditions associated with defect in airway **mucus** clearance including chronic **bronchitis, bronchiectasis** and **bronchial** asthma.

L77 ANSWER 32 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:100570 BIOSIS
DOCUMENT NUMBER: PREV200000100570
TITLE: **Lung** delivery of aerosolized **dextran**.
AUTHOR(S): Finlay, Warren H. (1); Lange, Carlos F.; King, Malcolm; Speert, David P.
CORPORATE SOURCE: (1) Aerosol Research Laboratory, Department of Mechanical Engineering, University of Alberta, Edmonton, AB, T6G 2G8 Canada
SOURCE: American Journal of Respiratory and Critical Care Medicine, (Jan., 2000) Vol. 161, No. 1, pp. 91-97. ISSN: 1073-449X.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The ability of nebulizers to deliver **dextran** (nominal molecular mass, 4,000 g/mol) to the **lung** as an inhaled aerosol is evaluated by in vitro experimental methods and mathematical models. **Dextran** in isotonic saline was aerosolized by four nebulizer types (Pari LC STAR, Hudson T-Updraft II, Acorn II, and Sonix 2000) at **dextran** concentrations gtoreq 400 mg/ml and with 2.5- and 4-ml volume fills. Aerosols inhaled during breath simulation were characterized by in-line phase Doppler anemometry, filter collection, osmometry, and gravimetry. Mathematical models were used to estimate amounts of the characterized aerosols depositing in the different regions of **lung** models, and mathematical models of **mucous** thickness were then developed to estimate initial concentrations of the depositing **dextran** in the **mucus** of each conducting airway generation. Models of three subjects (4 yr old, 8 yr old, and adult) were used. The high viscosity of the **dextran** solutions tested (up to seven times that of water) negatively impacts nebulization, and results in poor performance with most delivery systems tested. Our results suggest that airway mucosal **dextran** concentrations associated with efficacy in previous animal and in vitro models are achievable with reasonable delivery times (ltoreq 12 min) with only one of the delivery systems/formulations tested: the Pari LC STAR nebulizer, using a 2.5-ml volume fill and a **dextran** concentration of 200 mg/ml.

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